

IN THE CLAIMS:

1. (Currently Amended) Gear for a robot having a drive shaft and at least two first and second parts rotatable relative to the drive shaft and to one another, in which a movement of the first part is removable on a first end side remote from the second part, characterized in that at least one of the first parts part has a reference shaft connected in non-rotary manner thereto and which projects at least to the other part, said movement of said first part is additionally removable by means of said shaft on a second side facing said second part and remote from said first end side, an axis of said reference shaft is radially spaced from an axis of said drive shaft;
5 a bearing rotatably connects said first and second parts.

2. (Currently Amended) Gear according to claim 1, ~~characterized in that~~ wherein: the shaft (1) located on one part (3, 4) traverses the other part (4, 3) to its side (4b, 3b) remote from the one part (3, 4).

3. (Withdrawn) Gear according to claim 1, ~~characterized in that~~ wherein: the shaft (15) located on the one part (3, 4) is the drive of the sensor device (10) located in and/or on the other part (4, 3).

4. (Withdrawn) Gear according to claim 3, ~~characterized in that~~ wherein: the sensor device (10) is a monitoring device for determining and/or limiting the rotation parameters.

5. (Withdrawn) Gear according to claim 3, ~~characterized in that~~ wherein the sensor device (10) has a stub shaft (12) guided in a receptacle (13) and determines the rotation angle between stub shaft (12) and receptacle (13).

6. (Withdrawn) Robot according to claim 5, ~~characterized in that~~ wherein the receptacle (13) of the sensor device (10) is located on one part (3, 4) and the stub shaft (120) is connected in non-rotary manner to the shaft (15) located on the other part (4, 3).

7. (Withdrawn) Robot according to claim 3, ~~characterized in that~~ wherein an optical sensor device (10) is provided.

8. (Withdrawn) Robot according to claim 3, ~~characterized in that~~ wherein a magnetic sensor device (10), particularly a resolver is provided.

9. (Withdrawn) Robot according to claim 3, ~~characterized in that~~ wherein an electrical or electromagnetic sensor device (10) is provided.

10. (Withdrawn) Robot according to claim 3, ~~characterized in that~~ wherein a torque compensator connected to the sensor device (10) is provided for the robot rotation axis (2).

11. (Currently Amended) Gear according to claim 1, ~~characterized in that~~ wherein the

shaft (15) located on one part (3, 4) is subject to a torque.

12. (Withdrawn) Gear according to claim 11, ~~characterized in that~~ wherein: an auxiliary motor is provided on the shaft (15).

13. (Currently Amended) Gear according to claim 1, ~~characterized in that~~ wherein: the drive shaft (7) is a high speed side driven shaft of a drive motor (6) or is connectable thereto.

14. (Currently Amended) Gear according to claim 1, ~~characterized in that~~ wherein: the rotary parts (3, 4) are movable at a lower speed than the drive shaft (7).

15. (Currently Amended) Gear according to claim 1, ~~characterized in that~~ wherein: the shaft (15) is positioned coaxially to the rotation axis (2) of at least one of the parts (3, 4).

16. (Currently Amended) Gear according to claim 1, ~~characterized in that~~ wherein: the parts (3, 4) are positioned coaxially.

17. (Currently Amended) Gear according to claim 1, ~~characterized in that~~ wherein: the gear (1) is an in particular high speed reducing spur, bevel, worm or epicyclic gear.

18. (Currently Amended) Gear according to claim 1, ~~characterized in that~~ wherein: the

gear (1) is a harmonic drive gear.

19. (Withdrawn) Gear according to claim 1, ~~characterized in that~~ wherein: the drive motor (6) is positioned centrally to the rotation axis (2) of at least one of the parts (3, 4).

20. (Currently Amended) Gear according to claim 1, ~~characterized in that~~ wherein: the drive motor (6) is positioned eccentrically to the rotation axis (2) of at least one of the parts (3, 4).

21. (Currently Amended) Gear according to claim 1, ~~characterized in that~~ wherein: the drive motor (6) is positioned under a finite angle with respect to the rotation axis (2) of at least one of the parts (3, 4).

22. (Withdrawn) Gear according to claim 21, ~~characterized in that~~ wherein: the drive motor (6) is placed approximately under a right angle with respect to the rotation axis (2) of at least one of the parts (3, 4).

23. (Currently Amended) Gear according to claim 1, ~~characterized in that~~ wherein: one part (3) is constructed as a gearbox and the other part (4) as a gear shaft.

24. (Currently Amended) Robot, ~~characterized by~~ wherein: at least one gear (1)

according to one of the claims 1 to 23.

25 - 27 (Canceled)

28. (Currently Amended) A gear arrangement for driving an external device, the arrangement comprising:

a first gear part having a first side and a second side;

a second gear part rotatably connected to said first gear part to form a gear train, said second gear part having a first side adjacent said second side of said first gear part, said second gear part having a second side positioned diametrically opposite said first gear part, said first side of said first gear being positioned diametrically opposite said second gear part;

a first rotation connection drive input rotatably connected to said first gear part on a side of said first gear part other than said second side of said first gear part said first rotation connection forming a part of said gear train;

a second rotation connection connected to one of said first and second gear parts, said second rotation connection also forming part of said gear train; and

a third rotation connection between said first and second gear parts, said third rotation connection also forming part of said gear train, said third rotation connection including a reference shaft rotationally fixed to one of said first gear part and said second gear part, said reference shaft at least extending into through the other of said second gear part and said first gear part;

a rotation device connected to said third rotation connection

29. (Currently Amended) An arrangement in accordance with claim 28, wherein:
said reference shaft extends from said first second side of said second first gear part,
through said first second gear part to said first second side of said first second gear part.

30. (Previously Presented) An arrangement in accordance with claim 29, wherein:
said drive input enters into said first side of said first gear part.

31. (Previously Presented) An arrangement in accordance with claim 28, wherein:
said drive input enters into said first gear part in a direction substantially parallel to said
first and second sides of said first gear part.

32. (Currently Amended) An arrangement in accordance with claim 28, further
comprising wherein:

said rotation device is a sensor connected to said reference shaft and measuring
measures parameters of said first gear part through said first reference shaft.

33. (Currently Amended) An arrangement in accordance with claim 28, further
comprising wherein:

said rotation device is a torque device connected to said shaft and applying applies

torque to said first gear parts through said first reference shaft.

34. (New) An arrangement in accordance with claim 28, wherein:

said rotation device one of removes rotation from said gear train and applies rotation to said gear train.